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Development of a Cohesive Theory of Leadership

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Abstract

Previous assessments of leadership have failed to fully take into account what leadership is. Therefore, the goal for this study was to combine existing theories into one cohesive theory. In this study, undergraduate psychology students ($N = 21$), were placed in groups of 3 and recorded during a modified game of “20 Questions.” During the game, participants were observed and exhibited “leadership behaviors” were documented. Participants identified as leaders exhibited more leadership behaviors, but only as the experiment went on and no additional “power” was given to followers. Implications of results and possible means of improvement are discussed.

Introduction

When exploring the questions of how leadership works, there are an incredible number of competing theories that all appear to only answer one dimension of what leadership is. Of these theories, the four frontrunners appear to be the power approach, the contingency approach, transformational theory, and charismatic leadership (Landy & Conte, 2004). Previous studies have only focused on one of these four theories, even though there is experimental evidence for all four. This study seeks to bridge that gap and create a cohesive theory that ties all existing theories together.

Power theories postulate that leaders are in their positions because of control they have over followers. The original research in this field is French and Raven's 1959 work, in which the researchers document the five bases of social power. Reward power is based on a perception that the leader can give rewards and take away negative consequences. Coercive power involves the ability to punish those who do not conform to the leader's demands. Legitimate power refers to the idea that someone has a right to issue commands. Referent power is gained by associating with those who have other means of power. Finally, expert power involves having knowledge or information critical to a task.

Contingency theories are the most difficult to test and have little support in experimental research, but many psychologists still insist on the situation's importance to leadership (Zaccaro, 2007). These psychologists stress that leadership behavior changes depend upon the situation and that leaders begin to exhibit more mature behaviors over time as a result of situation. Providing more support to contingency theory is the finding that leaders seem to arise even in small groups that may not require a leader (Lonetto & Williams, 1974). Vroom and Jago (2007) further argue that leadership is a dependent

variable, not an independent variable; that is, situations shape leadership behavior and the consequences of that behavior. In addition they state that, organizational effectiveness is not under leadership control, and different leaders have no differences aside from the ones that the situation demands.

Transformational leadership occurs when a leader enables his followers to see an overarching vision that the followers then inherently strive to achieve. Measures of transformational leadership are best demonstrated during times of change in an organization (Herold, Fedor, Caldwell, & Liu, 2008). In addition, work environments seem especially receptive to transformational leadership (Howell & Avolio, 1993 & Keller, 2006).

Charismatic leadership comes the closest to a blend of the four previously mentioned theories. Kanungo and Conger (1989) speak of three stages in which charismatic leadership works. The first stage talks of how a leader assesses a situation and is sensitive to the context of his environment. In addition, a leader is able to see inadequacies with current systems and is willing to challenge them. Secondly, a leader creates a vision that his followers see as an ideal path to follow. Finally, a leader is able to actually achieve this vision because of his abilities. Essentially, charismatic theory is a small combination of some elements of the previous theories in that a charismatic leader finds situational constraints, modifies his behavior to fix the situation, and makes his followers see that his way is correct. Giving support to charismatic leadership is the finding that American measures of charismatic leadership have been shown to apply to other cultures (Rowold & Kersting 2008).

Hackman and Wageman's 2007 discussion offers five questions that need to be answered for leadership theory to advance, which can be summed up as "when does leadership matter," "how does a leader's attributes affect a situation," "are good leaders and bad leaders inherently different," "can a model be developed that treats everyone as a follower and a leader," and "how can leaders be helped to learn." This study attempts to answer these—and other—questions by combining current leadership research into one "cohesive theory of leadership" that demonstrates the interaction of current theories. Using data from all of the studies mentioned above, the experimenter has created a new model of leadership as seen in Figure 1. The figure shows how overall leadership is influenced by one's followers, traits, and other leaders. These three factors in turn affect each other, but all three are influenced in a similar fashion by situation, which is not inherently deterministic of leadership, but certainly has a prevailing influence on the factors that do affect leadership. In addition, situation cannot inherently be changed by the other three factors.

With this new theory in mind, organizations at all levels can begin to determine what truly affects leadership and how to tailor their leaders to situations given certain variables. By combining all leadership theories into one, a better view of what leadership truly is can be determined. To explore the validity of this new theory of leadership, this study takes advantage of Lonetto and Williams' aforementioned finding that leaders emerge in small groups not requiring leaders.

Methods

Participants

Undergraduate psychology students ($N = 21$) received extra credit in a psychology class for their participation in this study. No demographic information was taken, and participants signed approved consent forms prior to the experiment beginning. All data were kept on an encrypted jump drive to ensure security.

Design

The study sought to examine relationships between people in a small group situation, and in particular it looked at any behaviors exhibited by the participants that could be described as “leader-like” behaviors. These behaviors are the dependent variable and are explained in the Results section. The independent variable was time, as leadership does not simply appear, but shows up in behavior over time.

Materials

Participants were recorded with a Canon PowerShot SD600 digital camera. In addition, participants were given a three question survey at the end of the experiment, as seen in Figure 2.

Procedure

Participants in groups of three played six modified games of “20 Questions” with the experimenter while being recorded audibly and visually. Upon entering, participants signed consent forms and had the rules of the game explained to them. Before the game began, participants were assigned an order based on how they were seated. Each game consisted of the experimenter telling the participants the category a target word was in. The participants would then take turns asking yes-or-no questions to discover a target word that changed every round. After an initial round, one of the participants was given a hint to the solution of the next puzzle, but they were not allowed to explicitly state what

the clue was. Instead, an alternate means of communicating the clue was necessary to complete the game. This continued for three rounds so that each participant received a clue, and the final two rounds of the game contained no hints at all except for the category. Once six games were completed, participants filled out the essay survey seen in Figure 2.

Results

From the responses given on the survey portion of the experiment, the only relevant information that could be gleaned was whether or not particular group members were identified as leaders by their peers, and every group had such a leader. Additionally, participants were monitored for any exhibition of “leadership behaviors” such as contributing to discussion, beginning a discussion, or offering suggestions. Follower behaviors such as following suggestions and asking for advice were also recorded, but 3 such behaviors were exhibited throughout the entire study and they have thus been disregarded in further analysis of data. The variables that were the focus of the data were total number of leadership behaviors exhibited, number of leadership behaviors per minute, and whether or not a participant was identified as a leader. In addition, the difference in behaviors between rounds with hints and rounds with no hints was explored.

An alpha level of .05 was used for all statistical tests. A one-tailed Spearman’s rho test was performed between identified leaders and number of behaviors to determine whether or not leaders perform more leadership behaviors than non-leaders. A significant correlation of .393 was found ($p = .039$), and thus leaders do exhibit more behaviors than non-leaders. In addition, an independent samples t-test was run across behaviors per minute and whether or not a participant was a leader. Only in the final round of the game

was a significant difference found in behaviors per minute between leaders and other participants, $t(19) = -.217, p = .048$, which could mean that it took leaders until the final round to exhibit significantly more leadership behaviors. Interestingly, there was absolutely no difference between leaders and other participants in hint rounds, $t(19) = .008, p = .994$, implying that the extra information equalized leaders with the other participants.

Discussion

The correlation that participants identified as leaders exhibit more leadership behaviors is an unsurprising result, but at least shows that leaders were able to be identified by their peers. The most interesting data, however, can be seen in Figure 3 , which shows that the only time there was a significant difference between followers and leaders was in the final round, which could mean that it took leaders all six rounds to either be acknowledged as leaders or to step into the role of group leader. Also, in any round in which hints were given to group members, there is no difference at all between followers and leaders, which lends support to the idea that more than one type of leadership theory is at work. Obviously, contingency theory is not the only determinant of leadership, as during hint rounds leaders would have already begun to blossom and there would be a significant difference between leaders and followers. So, power theory is also exhibited in that when fellow participants were given reference power over their fellow participants, the playing field of leadership became equalized.

To begin discussion of how this experiment can be improved, it should be noted that the scope of the experiment does not do justice to the proposed theory. Given more time and money, personality surveys could have been implemented to get more reliable

data about participants' leadership styles. In addition, cash rewards could have been used as in the Lonetto and Williams study to provide incentive for groups to work together in more efficient ways. This would allow more opportunities for a leader to step forward and challenge the group to get as great a reward as possible. In addition, follow-up studies should be performed with participants who appeared to be the best leaders to see how groups of leaders interacted with each other. The ideal way to perform this study would be to find around 10 different situations to place leaders in while pulling in participants from various levels of corporations, firms, and institutions. Data from the observations and surveys could be cross-referenced with how high participants are in their respective companies to give a better idea of how effective this method is at determining leadership. Despite these shortcomings, the author feels that this study has potential to bloom into something greater. The theory itself has a significant amount of backup, by the reasoning that if four different theories have been proven to have experimentally valid aspects, then these aspects can certainly be combined to create a greater whole that will improve leadership theory throughout the entire field of industrial-organizational psychology. Finally, there is strong evidence within the study that shows that more than one theory of leadership is being enacted at the same time.

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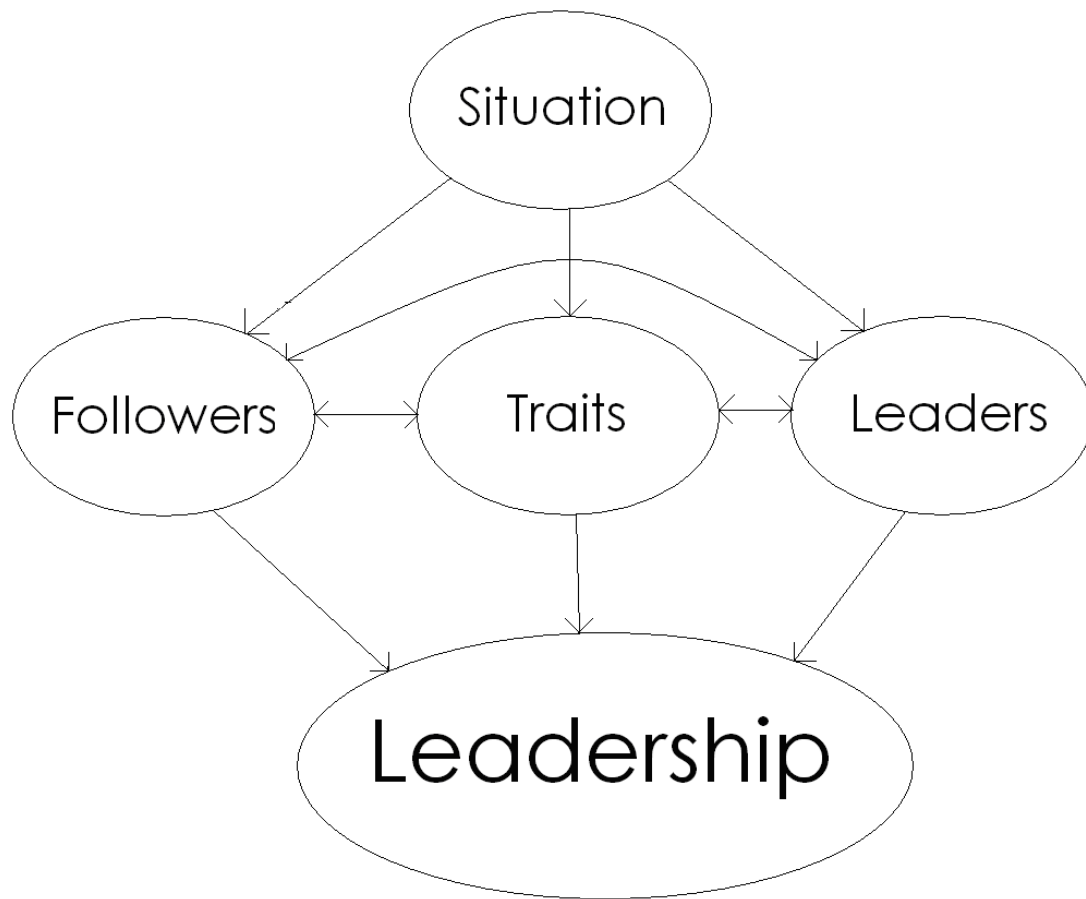


Figure 1. The cohesive theory of leadership. Leadership begins with the situation a leader is placed, which in turn affects follower behavior, behavior of other leaders, and the leader in question. These three factors together determine overall leadership when all factors are known.

How did you attempt to motivate your fellow participants to find the solution quicker?

Would you have performed better at the task with a different group of participants?

If it seems that one person in particular stepped forward to help the group find the solutions, did you feel that they were capable of leading the group?

Figure 2. Leadership survey. Participants were asked to fill out this survey at the end of the experiment. Responses on this essay grant insight into how participants view leadership and the ability of their fellow participants to lead and/or follow.

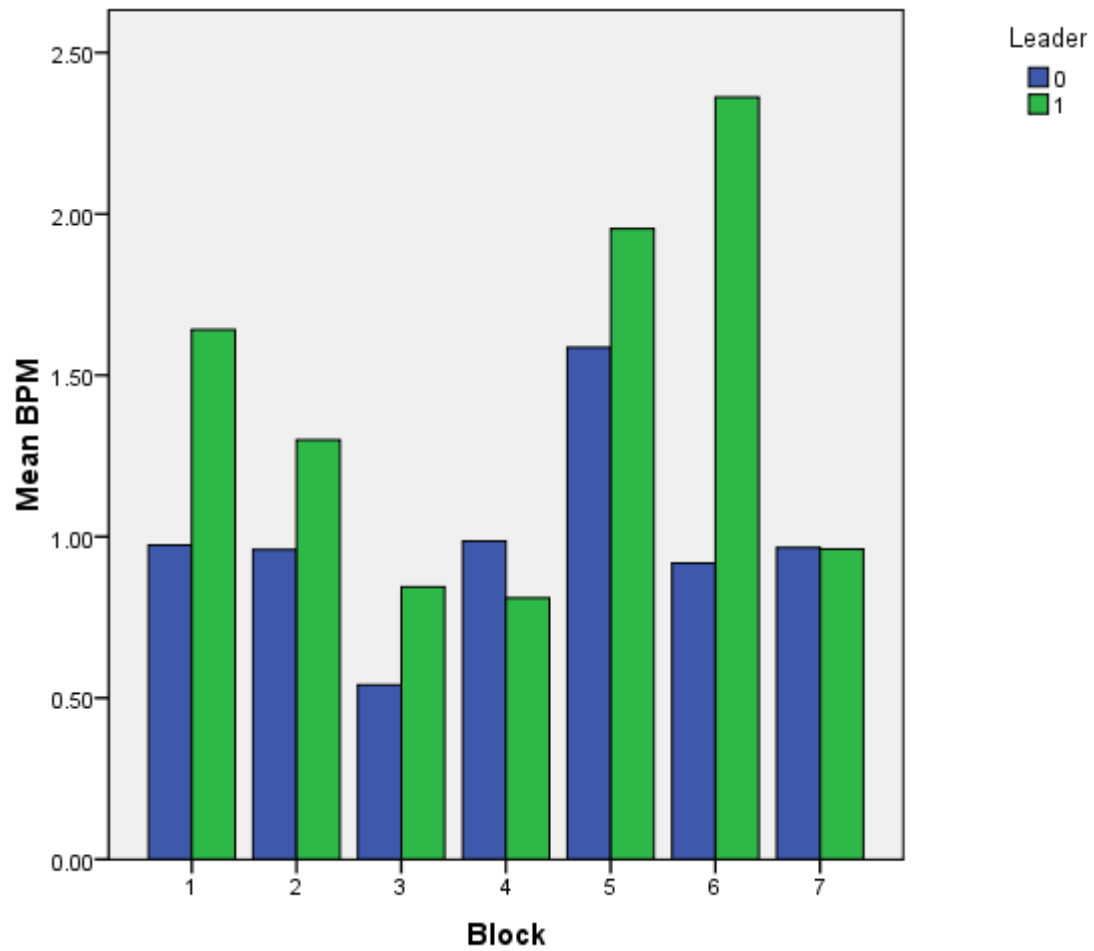


Figure 3. Average leadership behaviors exhibited per minute compared to trial block. Leaders are marked by green, non-leaders in blue. Block 7 refers to rounds in which a participant was given hints.